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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,908

01/18/2007

Kiyoshi Ikeda

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08/28/2009

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ALEXANDRIA, VA 22314

EXAMINER

GRESO, AARON J

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

08/28/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/591,908	<b>Applicant(s)</b> IKEDA ET AL.	
	<b>Examiner</b> AARON GRESO	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/03/2008 and 09/07/2006</u> .                               | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-7 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Structure descriptive material critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The genus's for Claims 2, 4, 5, and their respective corresponding dependant Claims 3, 6, 7 require an additional bond between the ring atoms and the R<sub>3</sub> group in instant Claim 2, or the R<sub>6</sub> group in instant Claim 4, or the R<sub>7</sub> group in instant Claim 5; the requirements of the genus's do not enable a factual structure to accommodate the R<sub>3</sub>, R<sub>6</sub>, or R<sub>7</sub> groups within known common art practice.

For example, the genus for instant Claim 2, shown in Figure 1 below, requires X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, and X<sub>7</sub> to each independently represent =CR- or =N- groups (2nd paragraph, instant Claim 2) where R, described in instant Claim 1, is not further described so as to accommodate the additional presence of R<sub>3</sub>.

The presence of  $R_3$  on the ring structure requires an additional bond to the ring that cannot be accommodated by general scientific practice because  $=CR-$  groups can not be  $=C(R_3)R-$  groups as this would require the carbon to have 5 bonds.

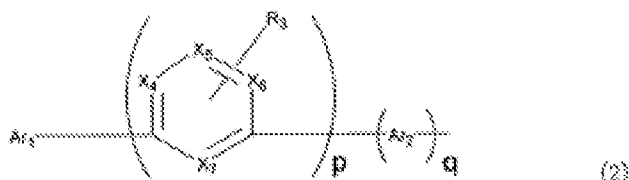


Figure 1. Applicants' Claim 2 genus.

Further, attaching the  $R_3$  group to a nitrogen bond would require nitrogen to have 4 bonds and would be expected to additionally involve disclosure of a nitrogen moiety to be of an ionic structure state.

Appropriate action is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by *Mitsuyoshi et al. (JP 2004-022334)*.

When the L in the Claim 1 genus is as described in Figure 1a) Structure 1-2 (*paragraph [0051]*) of the reference, shown in Figure 2, anticipates instant Claim 1.



where:

L represents a linking group having at least one meta bond, R1 and R2 each independently represent a hydrogen atom, an aryl group which has 6 to 50 ring carbon atoms and which may have a substituent. X1 to X3 each independently represent -CR- or =N- at least one of X1 to X3 representing =N- where R represents an aryl group which has 6-50 ring carbon atoms and which may have a substituent [or] a heterocyclic group which has 5 to 50 ring atoms and which may have a substituent.

Figure 1. Applicants' Claim 1 Genus.

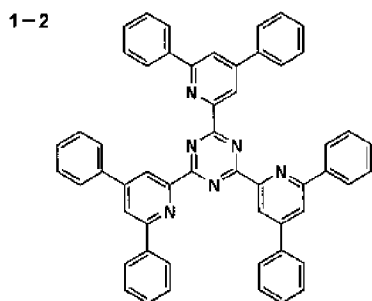


Figure 2. Structure 1-2 of *Mitsuyoshi et al.*

Further as to Claims 8-11:

*Mitsuyoshi et al.* further disclose a device, comprising layers, made from the materials that are within the Applicants' Claim 1 genus.

The device would inherently require being between an anode and cathode.

The reference discloses or inherently discloses all Claim attributes.

***Examiner Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON GRESO whose telephone number is (571)270-7337. The examiner can normally be reached on M-F 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/  
Supervisory Patent Examiner, Art Unit 1796

AJG